



FLY ASH FIELD SECTION 1018

1018.1 SCOPE. To establish procedures for inspecting, sampling, and accepting fly ash at the source and destination and to establish a list of qualified fly ash sources. The list of qualified sources is shown in [FS-1018 Table 1](#) of this Manual.

1018.2 APPARATUS. Keep all sample containers and equipment used in sampling clean and free of moisture or any foreign material. It is important that the sample be kept in airtight, moisture-proof containers from the time it is obtained until tests are started. The apparatus consists of:

- (a) Canvas bags with plastic liners.
- (b) Rubber bands for securely fastening the top of plastic liners.
- (c) Slotted tube, tube sampler, scoop or any other device suitable for obtaining the sample.
- (d) Labeling materials.

1018.3 PROCEDURE.

1018.3.1 Source Acceptance and Qualification. All fly ash for use in Department projects must be furnished from a qualified marketing entity or a qualified terminal and must comply with the requirements of Specification Sec 1018. The procedures for qualification are listed in Specification Sec 1018. Direct questions from potential suppliers concerning qualification to the Central Office. The latest copy of each marketing entity's quality control plan is to be kept on file in the Central Office. Send any updates to the quality control plan directly to the Chemical Laboratory Director.

1018.3.2 Inspection and Sampling. The Field Materials Chemist may coordinate with the marketing entity to obtain a semi-annual split sample of fly ash from each qualified source. Complete a sample record in SiteManager showing manufacturer, marketing entity, silo number, class and other pertinent information. Designate sample type as a " Split Sample". The marketing entity shall furnish test results on the split sample direct to the Field Materials Chemist within two weeks of completion.

1018.3.3 Disqualified Facilities. Fly ash marketing entities or terminals that fail to comply with the qualified status as set forth in Specification Sec 1018 will be required to designate the silo(s), bin(s), or storage facility from which they propose to furnish fly ash for MoDOT projects. The producer must sample, test, and report satisfactory test results for each designated silo, bin, or storage facility. Prior to any shipment and following a satisfactory report furnished to the Chemical Laboratory Director, each silo, bin, or storage facility will be sampled and sealed by the Field Materials Chemist. If the results of testing by the Central Laboratory are satisfactory, the sealed silo, bin, or storage facility will be approved. This procedure will continue until adequate quality control has been re-established.



1018.3.4 Destination Inspection of Approved or Certified Fly Ash.

1018.3.4.1 The ready-mix, precast, or paving plant operators shall furnish a copy of the bill of lading or delivery receipt for each shipment to MoDOT work.

1018.3.4.2 Use the following procedure to sample fly ash on paving jobs and at ready-mix plants. Samples shall weigh a minimum of 5 lb. [2.25 kg]. Obtain samples from the storage bin or weigh hopper in one operation representing a brief period in the fly ash stream.

1018.3.4.3 Take a sample for each 600 tons [544 Mg] or portion thereof at destination for each paving job and submit to the Laboratory.

1018.3.4.4 At ready-mix or precast plants, take a sample for each 600 tons [544 Mg] or portion thereof with a minimum of one sample every other month during the period that the ready-mix or precast plant is furnishing fly ash modified concrete for Department work.

1018.3.4.5 Place the samples taken at destination in a canvas bag containing a plastic liner and ship to the Central Laboratory. Complete a sample record in SiteManager and show the manufacturer, marketing entity, silo or bin number, type, and other pertinent information such as contractor, plant location, and county. Designate the sample type "Proj-Check Sample".

1018.3.4.6 The district is to insure that the qualified marketing entity is certifying each shipment in accordance with Specification Sec 1018, including all requirements for signatures and shipments from other entities.

1018.4 REPORT.

1018.4.1 Report of Central Laboratory test results on random samples of fly ash originating from a qualified marketing entity will not be distributed unless specifically requested and conditions warrant this information for a specific purpose.

1018.4.2 The receiving district Operations Engineer shall continuously monitor shipments to the particular ready-mix or paving plants to assure the fly ash was shipped from an approved source.

1018.4.3 Perform a review of each plant's inspector's daily report at regular intervals not to exceed one week. Verify that enough tickets are shown to account for the amount of fly ash used and that the fly ash came from a qualified marketing entity.

1018.4.3 If the report does not contain the required information, notify the district Operations Engineer.

